

# ZEPHYR

JANUARY 1977 JANVIER



Fisheries  
and Environment  
Canada

Pêches  
et Environnement  
Canada

Atmospheric  
Environment

Environnement  
atmosphérique

## ZEPHYR

JANUARY 1977 JANVIER

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## WEATHERADIO CANADA

A new weather dissemination program has just been initiated in the Vancouver, Victoria, and southern Georgia Strait area.

This new service is a VHF-FM radio system, to be known as WEATHERADIO CANADA. The first station of its kind in Canada is in Vancouver and additional stations are planned for other cities over the next few years. The operational program is expected to begin about mid January 1977, or about the time that this issue of Zephyr is distributed.

Continuous up-to-the-minute weather information is provided to listeners in the area of southern Georgia Strait on a frequency of 162.40 megahertz. The call letters of the station are CFA 240. The studio equipment is located in the Pacific Weather Centre in Vancouver, and the VHF transmitter and antenna are located at the 602 metre level of Mount Tuam on southwestern Saltspring Island. A UHF radio link is used to transmit the program from the weather office studio to the VHF transmitter.

Programming on Weather Radio is oriented to the near future with emphasis on weather warnings when required. Included are: weather warnings when issued; public and marine forecasts for the local area; local and marine weather observations; mountain forecasts for southwestern B.C. and western Washington; ski resort reports; cross country reports; and an aviation summary.

The weather information is prepared in the Pacific Weather Centre and is taped for continuous transmission 24 hours a day, and 7 days a week. Re-cycle time varies slightly depending on the length of the forecasts but averages about 8 minutes. The information is updated and amended as required.

The studio equipment in the Pacific Weather Centre is a Radio Weather Control Console which consists of six cartridge tape reproducers, two cartridge tape recorder/reproducers, a remote control monitoring panel, and a sequence panel. The cabinet is also equipped with a pull-out writing shelf and a microphone. Program segments are recorded on each of six or seven tape cartridges and placed into the 6 reproducers and either of the two recorders. These can then be played in any desired sequence. When one tape cartridge is to be changed or amended, the particular reproducer is switched to the pass position while this is done, and in this way, the continuous operation facility of the equipment is not interfered with.

A short intensive course on broadcasting techniques has been given to several of the Weather Centre technicians in order to bring them up to the standards required of the broadcasting industry. On the advice of sound room experts and professional broadcasters, a sound-proof studio has been constructed in Pacific Weather Centre. This room houses the studio equipment, as well as a CRT link with the Centre's computer which displays the information for the broadcaster.

The system has a tone alert capability which can draw the listener's attention to urgent warnings of hazardous weather. This tone alert device is generated in the studio when the weather warning is issued. It produces a tone which can be used to activate specially designed receivers within the transmitter's zone of coverage.

A.E.S. weather broadcasts can normally be heard as far as 75 kilometers from the antenna site, although the actual range depends on many factors, particularly terrain,

quality of receiver, and type of receiving antenna. Generally, listeners near or beyond the 60 kilometre range should have a good quality receiver and an outside antenna if they expect reliable reception.

The frequency is not found on the average home radio, however, a number of radio manufacturers offer special weather radios that operate on this frequency. There are also many standard AM/FM tunable radios on the market which offer the VHF high band or the so-called "weather band" as an added feature. These are subject to interference from other frequencies on the VHF high band however, particularly in and near the major cities, although they will give interference-free service at locations fairly close to the transmitter but not near the cities. Crystal-controlled receivers can be obtained from \$50 up, and these will give the most reliable reception. The chart shown indicates the area of dependable reception using one of these crystal-controlled receivers.

This extremely useful weather dissemination program will have a special interest to a wide variety of the public, be they pleasure boaters, fishermen, farmers, skiers, truckers, construction workers or others.

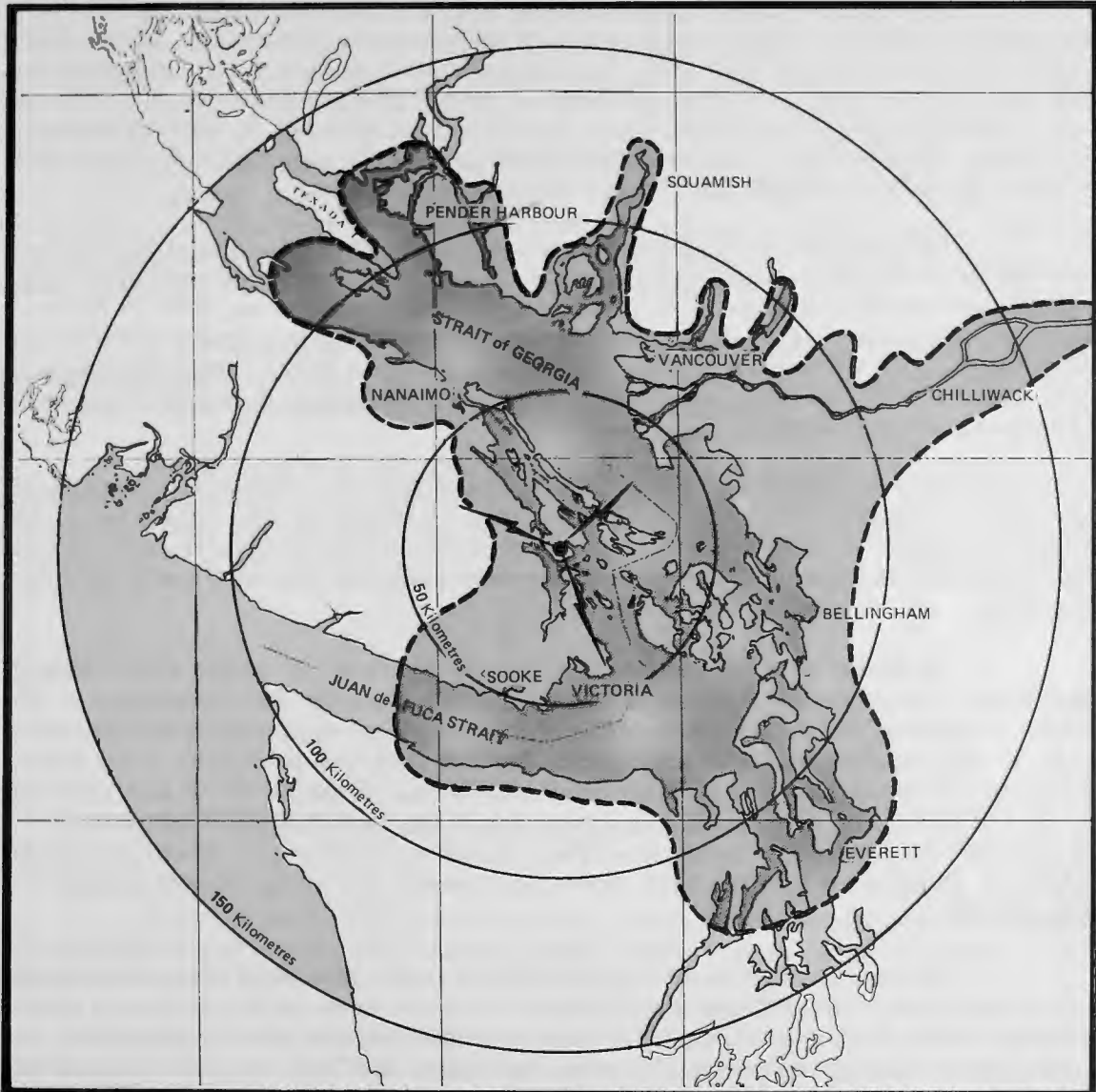
Part of the publicity campaign for this service will consist of a display at the Vancouver Boat and Sport Show, which runs February 25 to March 6, 1977 inclusive at Exhibition Park in Vancouver.



*Antenna Site.*

*Looking N.W. at the Top of Mount Tuam, southwestern Saltspring Island, with beautiful Cowichan Bay and Separation Point, Vancouver Island, in the background.*

*Vue prise du sommet du mont Tuam (sud-ouest de l'île Saltspring) vers le Nord-Ouest; au fond, la magnifique baie Cowichan et Separation Point dans l'île de Vancouver.*



*Area of Reception of VHF Broadcast. Light area inside heavy dashed line indicates dependable reception. Zone de réception des émissions VHF. Réception fiable à l'intérieur du pointillé épais.*

## RADIOMÉTÉO CANADA

Un nouveau programme de diffusion d'information météorologique vient d'être lancé dans la région de Vancouver, de Victoria et du secteur sud du détroit de Georgie.

Il s'agit d'un nouveau service diffusé sur ondes métriques, par un réseau radio-phonique en modulation de fréquence, connu sous le nom de RADIOMÉTÉO CANADA. La première station du genre au Canada se trouve à Vancouver et l'on envisage d'installer d'autres stations dans d'autres villes au cours des prochaines années. Le programme doit entrer en service vers la mi-janvier 1977, soit à peu près au moment de la diffusion du présent numéro de Zéphyr.

Les auditeurs de la région du secteur sud du détroit de Georgie reçoivent sans interruption les derniers renseignements météorologiques, sur la fréquence de 162,40 MHz. L'indicatif de la station est CFA 240. Le studio se trouve au Centre météorologique du Pacifique, à Vancouver, tandis que l'émetteur à ondes métriques et l'antenne sont situés à 602 mètres d'altitude, sur le Mont Tuam, dans le secteur sud-ouest de l'île de Saltspring. Une liaison raidophonique à ondes décimétriques permet de transmettre le programme du studio du bureau météorologique à l'émetteur à ondes métriques.

Les programmes de Radiométéo portent sur le futur immédiat et particulièrement sur les avertissements météorologiques s'il y a lieu. On diffuse notamment des avertissements météorologiques quand il en paraît; des prévisions destinées au public et des prévisions maritimes pour la zone locale; des observations météorologiques locales et maritimes; des prévisions pour les zones de montagnes du secteur sud-ouest de la Colombie-Britannique et de l'ouest de l'Etat de Washington; des bulletins pour les stations de sports d'hiver et le ski de randonnée et un sommaire pour l'aviation.

Les renseignements météorologiques sont établis au Centre météorologique du Pacifique et enregistrés pour transmission continue 24 heures sur 24, 7 jours sur 7. Le message enregistré se répète en moyenne toutes les 8 minutes environ, la durée variant légèrement selon la longueur des prévisions. Les renseignements sont mis à jour et modifiés s'il y a lieu.

Le studio du Centre météorologique du Pacifique est équipé d'une console Radiométéo formée de six lecteurs de cassettes, deux appareils d'enregistrement et de lecture de cassettes, un panneau de contrôle télécommandé et un panneau pour l'enchaînement. La console comprend aussi une tablette que l'on peut tirer pour écrire et un microphone. Les différents éléments du programme sont enregistrés sur les six ou sept cassettes que l'on place dans les six lecteurs, dans l'un ou l'autre des deux appareils d'enregistrement. On peut alors les passer dans l'ordre choisi. Pour changer ou modifier une cassette, on met le lecteur en question en position hors service pour assurer le fonctionnement continu de l'équipement.

Plusieurs techniciens du Centre météorologique ont suivi un bref cours intensif sur les méthodes de radiodiffusion afin d'atteindre le niveau requis par le secteur de la radiodiffusion. Sur les conseils d'experts en insonorisation et de présentateurs professionnels, on a construit un studio insonorisé au Centre météorologique du Pacifique. Cette pièce abrite le matériel du studio et une liaison de la RTC avec l'ordinateur du Centre qui affiche des renseignements à l'intention du présentateur.

Le système a la possibilité d'émettre une tonalité d'alarme qui peut attirer l'attention de l'auditeur en cas d'avertissements urgents de risques dus au temps. Le dispositif émettant la tonalité de l'alarme est actionné dans le studio au moment où paraît l'avertissement météorologique. La tonalité peut à son tour actionner des récepteurs spécialement conçus situés dans les limites de la zone desservie par l'émetteur.

Les émissions météorologiques du SEA peuvent normalement s'entendre jusqu'à 75 kilomètres du site de l'antenne, mais la portée réelle dépend de bien des facteurs, notamment du terrain, de la qualité du récepteur et du type de l'antenne réceptrice. En général, des auditeurs qui se trouvent à environ 60 kilomètres ou au-delà de cette distance de l'antenne doivent avoir un récepteur de bonne qualité et une antenne extérieure pour obtenir une réception sûre.

La fréquence d'émission ne se trouve pas sur les postes de radio courants, mais un certain nombre de fabricants offrent des postes de radio spéciaux pour renseignements météorologiques qui fonctionnent sur cette fréquence. Il existe aussi sur le marché de nombreux postes de radio réglables courants MA/MF qui offrent, en plus, la bande d'hyperfréquences que l'on appelle "Bande météorologique", mais les autres fréquences de la bande d'hyperfréquences risquent de causer des brouillages, surtout dans les grandes villes ou à proximité de celles-ci. Il n'y a cependant pas de parasites dans des endroits éloignés de la ville situés près de l'émetteur. Il existe des récepteurs à pilotage piézoélectrique à partir de 50 \$ qui donnent la réception la plus sûre. La carte présentée ici indique la zone dans laquelle les récepteurs à pilotage piézoélectrique donnent une réception sûre.

Ce programme de diffusion d'information météorologique extrêmement utile doit particulièrement intéresser un public très divers, navigateurs de plaisance, pêcheurs, agriculteurs, skieurs, camionneurs, ouvriers du bâtiment ou autres.

Dans le cadre de la campagne publicitaire visant à faire connaître ce service, une exposition aura lieu au Salon de la navigation et des sports de Vancouver qui se tiendra du 25 février au 6 mars 1977 inclusivement, au Parc des expositions de Vancouver.

### **MR. J.R.H. (Reg) NOBLE, ADMA, RETIRES**

On December 8, 1976 several hundred friends and colleagues of J.R.H. (Reg) Noble attended a presentation and reception for him on the occasion of his retirement after forty years of service in the AES.

"Reg" joined the then Meteorological Service in 1936 when it was part of the Department of Fisheries and Marine and has followed its future through DOT - Environment and full circle back to service in the Department of Fisheries and Environment.

Mr. Noble's career spanned the most productive and exciting period in the history of The Service. Many tributes were paid to him in recognition of the important role he played in building AES to its present eminence nationally and internationally.

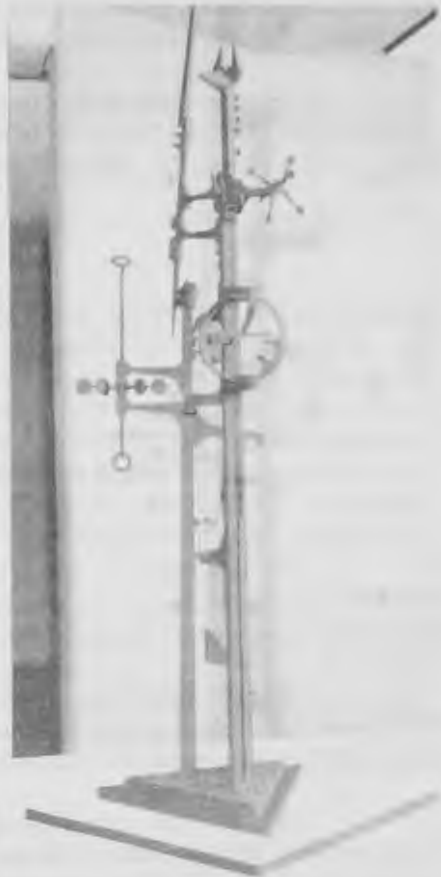
The presentations were held in the auditorium at AES Headquarters under the chairmanship of Dr. W.L. Godson. Tributes, congratulations and presentations were made by Mr. J.B. Seaborn, D.M. of Fisheries and Environment on behalf of Senior Government, Mr. R.M. White, Administrator - N.O.A.A. on behalf of the U.S. Weather Bureau, Mr. H.V. Tucker, D METOC/NDHQ, for the armed forces. Mr. L.T. Campbell read many congratulatory messages from friends and colleagues unable to attend and presented a portrait of Mr. Noble to join those of all previous Directors, Miss Bernice Sherman presented a bouquet



*Mr. J.R.H. Noble with his granddaughter.*



*J.R.H. Noble and E.A. Brickman.*



*Model of AES Sculpture.*

Photos — ab Photographic



of flowers to Mrs. Noble, Mr. R. Vockeroth made a presentation of a miniature of our AES sculpture as fabricated by Instruments Branch, and Mr. M.K. Thomas presented him with a camera and a digital radio on behalf of his many friends.

The presentations were followed by a reception held in the cafeteria of AES Headquarters. Many friends and colleagues were able to present their personal congratulations to Mr. & Mrs. Noble and to wish them many happy years of retirement.

### CHRONOLOGY MR. J.R.H. NOBLE'S CAREER IN METEOROLOGY

1. **1936** – Joined the Meteorological Service of Canada of the Department of Marine and Fisheries after obtaining an M.A. in Physics (Meteorology) at the University of Toronto.
2. **1936-39** – Developmental work in providing meteorological services for the North Atlantic Air Mail Service and for a Transcontinental Air Service.
3. **1939-45** – Developmental and administrative work in providing services for military aviation, and especially the British Commonwealth Air Training Plan.
4. **1946-64** – Chief of the Administration Division at Meteorological Branch Headquarters.
5. **1965-70** – Director of the Meteorological Branch, and in  
**1970-71** – Administrator, Canadian Meteorological Service of the Ministry of Transport.
6. **1971-76** – Assistant Deputy Minister of the Department of the Environment, responsible for Atmospheric Environment Service.

## SECOND VISIT TO ALBERTA OIL SANDS AREA

by

Dr. F.H. Fanaki

The intensive field study of March 1976 at the Oil Sands area in Alberta (see Zephyr April, 1976) has yielded interesting results concerning the meteorology and deposition and dispersal of pollutants in the area. However, since part of the field study was characterized by a relatively warm temperature ( $+9^{\circ}\text{C}$ ), it is felt that a further field study (in Feb. 1977) is needed for typical cold winter conditions (expected average temperature to reach  $-30^{\circ}\text{C}$ ).

The objectives of the study are the same as those of March 1976 study i.e.

- (i) to obtain detailed information in space and time on wind flow, temperature, and turbulent structure of the atmospheric boundary layer in that area,
- (ii) to obtain information on the rise of the GCOS (Great Canadian Oil Sands) plumes, their behaviour and dispersal, as a function of meteorological conditions and downwind distance,
- (iii) to investigate the air quality and pollutants deposition in the area.



*Mr. F. Fronde (ARQT, AES) preparing the micro-meteorological tower during the Field Study.  
M. F. Fronde (ARQT, SEA) prépare la tour micrométéorologique pendant l'étude pratique.*



*GCOS plumes penetrating a series of inversion layers.  
Entrée des panaches émanant des grands sables pétrolifères canadiens dans une série de couches d'inversion.*



*Fanning plume under an inversion layer.  
Étalement des panaches sous une couche d'inversion.*



*Aerial photograph of the GCOS plant during operation.  
Vue aérienne de l'usine de traitement des grands sables pétrolifères canadiens, en service.*

In addition, the study will include a program to measure the rate of SO<sub>2</sub> oxidation in the GCOS plumes and measurements of the spectral distribution of the global solar radiation. Furthermore, the study will be extended to include measurements of dispersion coefficients by means of turbulent measurements and plume sampling. The validity of the data obtained will be tested with the existing data obtained from March 1976 study.

The above mentioned measurements are necessary in order to add statistical significance to the data obtained in March 1976.

The expected February 1977 Field Study is a cooperative effort between the Atmospheric Environment Service and Alberta Department of the Environment.

## LES DANGERS DE CAPE DYER



*"Voici un des dangers auxquels font face les observateurs de Cape Dyer, lorsqu'ils vont faire l'observation des glaces côtières."*

## SIX WEEKS IN RESOLUTE

by

Doris Siemieniuk

On September 10, I left Winnipeg to begin a six week tour of duty in Resolute. Roy Woodrow, Officer-in-Charge of the Resolute Weather Office, was about to be transferred to the Ice Forecasting Central in Ottawa, and I was replacing him until the competition to fill his position was finalized. During a stopover in Edmonton, I spent some time in the Arctic Weather Central to obtain a preview of Arctic operations. When I arrived in Resolute by PWA jet later that afternoon, I was greeted by Roy Woodrow and Merlyn Steffanick, acting Senior Meteorological Technician. During the next week, Roy and Merlyn did their best to ensure that I was familiar with the office routine and the people I would be working with. Upon Roy's departure on September 16, I was officially Officer-in-Charge.



*Resolute*

Resolute Airport was a busy place during the next three weeks. Chartered and scheduled flights to such places as Pond Inlet and Strathcona Sound required daily pre-flight briefings. Also operating out of Resolute at this time was an Ice Reconnaissance aircraft, which required briefings at 7:00 a.m. and occasionally at 5:00 a.m. The High Arctic Weather Stations at Eureka, Isachsen and Mould Bay are supplied through Resolute, and these Produce Flights scheduled every three weeks, keep the Supervisor of Transportation and Administration ably assisted by the Weather Office staff busy sorting and packing supplies and mail. Most pilots were surprised to find a woman meteorologist working the briefing desk when they came to the office. A female voice at the other end of the telephone line, however, was not unusual, as the meteorological technician staff included three women.

I was fortunate that approval was obtained for me to go on two Ice Reconnaissance flights. The tracks of these flights cover a large area of northern waters, and the flight duration is usually in excess of eight hours. The first flight went south along the west coast of Prince of Wales Island to Gladman Point, then east and back north along the West Coast of Somerset Island. The second trip gave me my first look at Baffin and Ellesmere Islands. These flights gave me a glimpse of the beauty and majesty of the Arctic, a sight most Canadians never see.

During my stay, the icebreaker *Sir John A. MacDonal*d was working in the Resolute area, and the Ice Observer on board gave four of us a guided tour of the ship, from the kitchen to the engine room.

My six-week tour in Resolute taught me a great deal about Arctic weather conditions, and made me aware of how much more I had to learn. I found that most pilots were extremely co-operative in passing on weather conditions when they returned from a flight, so my subsequent briefings could contain more detail.



*Doris briefing the Nordair Ice Reconnaissance Crew.  
Exposé verbal de Doris Siemieniuk à l'équipage d'un avion Nordair de reconnaissance des glaces.*

In mid-October, the shortening days curtailed flying activities and the weather office became a less hectic place. Doug Holdham, the winner of the competition to replace Roy, arrived October 15. This time I was the "Arctic veteran" showing the "Southerner" the ropes. On October 22, I said good-bye to Resolute and returned to Winnipeg – thankful for having had the opportunity to become acquainted with the land and people of the north.

#### **Another First!!**

Doris Siemieniuk was the first woman OIC of an Arctic Station.

**NODIT**  
**Notes on Operational Development**  
**Implementation and Training**

by

R.J. Mills

November, 1976, saw the first issue of a new technical newsletter, NODIT (Notes on Operational Development Implementation and Training). NODIT grew out of a need to provide better communications links amongst operational personnel.

ODIT units have developed, over the past five years or so, providing challenging opportunities for field forecasters and technicians to become involved in the development of new procedures and technology within the operational field offices. Along with these increased opportunities has developed the need to build stronger lines of communications to guard against such things as work being done in isolation, redundancies and diverging lines of attack to similar problems. This is where NODIT came in.

NODIT was given approval as a regular technical newsletter following the ODIT Conference of June 7-8, 1976. Its objective is to provide a rapid informal communications link for the flow of technical information amongst personnel involved in operational activities, particularly ODIT. NODIT is not intended to supersede or replace the Technical Memorandum Series, but rather to augment it. There is, I am sure, a wealth of information on operational procedures and techniques within the service, but, because of its nature or format, will not appear in publications such as the Technical Memorandum Series. NODIT is the vehicle to distribute such information – information on major subjects that are underway, local routines that may be of interest to other units and specific operational problems that have arisen.

Presently ODIT units are heavily involved in computer activities and, although NODIT will primarily address ODIT activities, it is not intended that this newsletter become a vehicle solely for the exchange of computer operations information. On the contrary, it is intended that NODIT should *also* provide the operational forecaster and technician with the means of exchanging forecasting tips and techniques.

NODIT will be edited by the Professional Development Division (ACEC) of Training Branch and will be published bi-monthly. The editing done by ACEC will generally be the correction of grammar and format. No formal review will be made and articles will be published in the language of the contributor. All AES personnel involved in operational activities are urged to submit articles for inclusion in NODIT. Articles for publication should be sent to ACEC, attention NODIT Editor.

## SAVOIR PREVOIR A TEMPS LE TEMPS QU'IL FERA

OTTAWA – La météo préoccupe le monde. On n'a qu'à se souvenir des catastrophes naturelles qui ont transformé certaines régions en zones sinistrées, pour se rendre compte de l'importance du temps sur la vie des hommes.

Au cours des dernières décennies, un réseau mondial de stations météorologiques, pourvues d'instruments de plus en plus perfectionnés, scrutent les moindres caprices du temps.

Au Canada seulement, plus de 250 de ces stations, reliées entre elles par un réseau de communication rapide du type "telex", dressent le modèle des conditions atmosphériques du pays.

Chacune d'entre elles, à intervalles réguliers, fait parvenir aux grands centres météorologiques de Montréal et de Toronto, les données suivantes: température, visibilité, pression atmosphérique, altitude des nuages, vélocité des vents et facteur de condensation de l'air.

Dans ces centres sont élaborées les prévisions atmosphériques qui sont ensuite relayées aux centres secondaires sous forme de messages codifiés et de cartes, dessinées à l'ordinateur, qui indiquent le modèle atmosphérique du pays pour les prochaines 48 heures.

Les ordinateurs de Toronto et de Montréal dirigent, en quelque sorte, le "trafic" des multiples données recueillies par les stations météorologiques du pays. Par exemple, en plus de colliger les données de la météo, et d'en produire un résumé, l'ordinateur de Toronto est relié à celui de Washington qui, à son tour, peut communiquer avec celui de Moscou. Ainsi, il est possible pour le technicien météorologue d'Ottawa, de savoir en quelques minutes seulement, le temps qu'il fait à Paris, en pressant quelques boutons.

En plus de toutes ces stations, des satellites prennent régulièrement des photographies des formations nuageuses de l'atmosphère. Ce sont ces photographies qu'utilisent les "météorologues" de la télévision.

#### 8,000 appels par mois

Mais à quoi sert toute cette quincaillerie? A Ottawa, un porte-parole du Bureau météorologique d'Uplands, M. Pierre Pontbriand, nous laisse croire que la société est véritablement affamée de météo.

"Nous recevons plus de 8,000 appels téléphoniques par mois, indique le technicien en météorologie. Il explique qu'un grand nombre de ces appels provient de ceux qui projettent une sortie en plein air, une excursion en fin de semaine, un voyage hors de la ville ou un travail de peinture à l'extérieur de la maison. Tous ces gens-là désirent savoir si le temps compromettra leurs plans."

"Puis, il y a ceux qui organisent des activités sociales, poursuit M. Pontbriand. Les compagnies de construction veulent savoir si le temps leur permettra d'entreprendre un travail délicat. Il y a aussi les distributeurs d'huile à chauffage qui se servent de la température pour calculer le moment où il faudra remplir les réservoirs de leurs clients."

L'aviation demeure un des plus gros, sinon le plus important, consommateurs de météo. Les pilotes reçoivent des cartes météorologiques des conditions atmosphériques à diverses altitudes. Elles leur permettent de prévoir les obstacles atmosphériques et ainsi de planifier leur navigation.

Une de ces cartes, affichée la semaine dernière dans le bureau météorologique, indiquait un front froid et des courants "jet", de vents de 110 noeuds, à 30,000 pieds d'altitude.

Les nuages d'orages peuvent atteindre environ 35,000 pieds d'altitude. Les avions à haute altitude peuvent les survoler, mais les plus petits doivent les contourner ou les traverser. C'est pourquoi des cartes précises des conditions atmosphériques sont vitales pour la sécurité des vols.



### Prévisions facultatives

M. Pontbriand explique que la météorologie, à l'heure actuelle, ne peut pas prévoir avec précision le temps qu'il fera plus de 48 heures d'avance. "Nous ne donnons qu'un aperçu pour le troisième jour, puis, pour le quatrième et le cinquième jour, les aperçus sont très facultatifs."

Le technicien estime qu'en moyenne, 80 pour cent des prévisions du bureau sont correctes. Rejetant tout blâme, il dit que les prévisions atmosphériques parviennent du Centre météorologique de Montréal. Toutes les données recueillies en Amérique du Nord, et les tendances des trente dernières années, y sont traitées mathématiquement par les ordinateurs et des météorologistes.

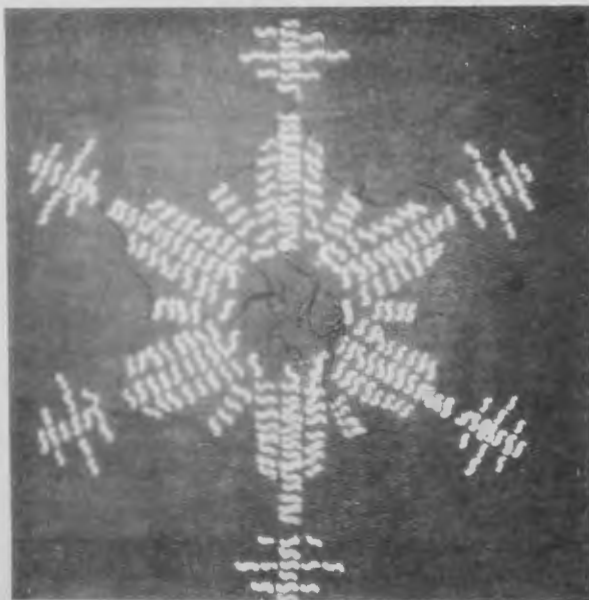
Selon M. Pontbriand, une partie des 8,000 appels téléphoniques mensuels sont des réactions à des prévisions erronées. "Mais, dit-il, personne ne remarque notre précision lorsqu'elles sont bonnes."

Quant à l'été que nous venons de passer, le technicien remarque qu'il n'était pas plus pluvieux qu'à l'ordinaire.

Selon lui, la précipitation normale du mois d'août est de 81.5 millimètres de pluie; cette année, 78.3 millimètres de pluie sont tombées, au mois d'août, sur la région. L'an dernier, on en avait eu 29.2 millimètres.

La seule prévision à long terme provient des Etats-Unis. Une carte des services météorologiques de ce pays indique que la température moyenne aux mois de septembre et octobre sera sous la normale.

Ainsi, ces services ne servent qu'à nous avertir, à brève échéance, s'il fera beau ou non. Heureusement, peut-être, nous n'avons pas encore réussi à modifier à notre avantage les caprices du temps.



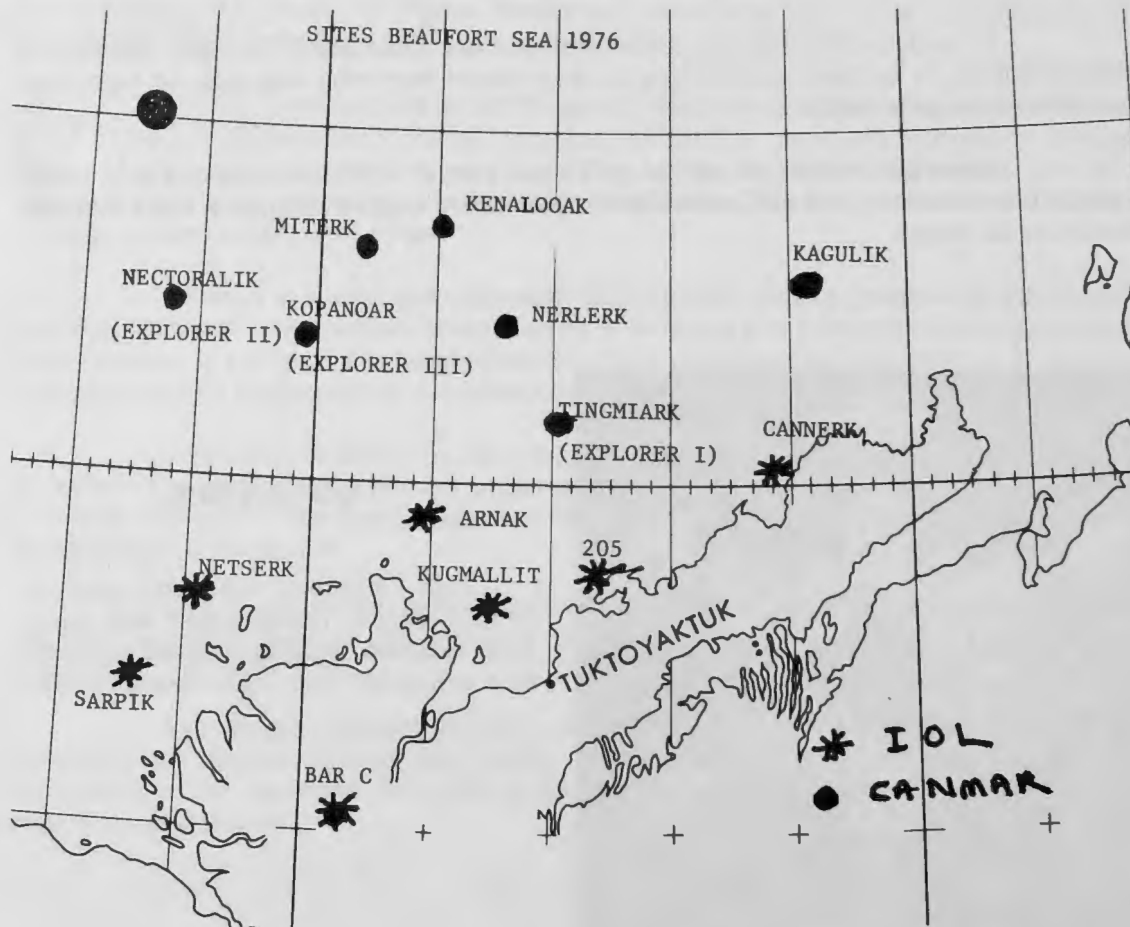
### DECORATION

This Christmas decoration used in Central Region Headquarters was made from recycled packing material received in a shipment from AES Headquarters.

### OPERATIONAL PHASE OF BEAUFORT PROJECT ENDED OCTOBER 20 WITH THE CLOSING OF BEAUFORT ADVANCE BASE (BAB)

The last weather, ice and wave forecasts for Canadian Marine Drilling Limited (Canmar) were issued October 20. The success of the service may be measured in part by the fact that Canmar didn't hesitate to fund a one month extension to our contract at a cost of \$30,000. The following quote from the Canmar Bulletin of September 30 speaks for itself. "See insert". Imperial Oil Limited (IOL) received weather and wave forecasts for their offshore island construction program. They shared the cost with Canmar the total of which will be close to the budget estimate of \$265,000.

Implementation of the Beaufort Sea Environmental Observation and Prediction System moved into high gear in April 1976 when A.E.S. and Canmar reached agreement on services and costs. The formal contract was signed May 14 by Mr. J.R.H. Noble ADMA and Mr. G.R. Harrison President of Canmar. Many units in A.E.S. in various directorates have been involved in the design and implementation activities. Most of the action relative to the operational system has been in Western Region. Supporting units include Ice Branch in particular Ice Forecasting Central, Meteorological Services Research Branch, Instrument Branch, Field Services Meteorological Systems Branch and the Canadian Meteorological Centre. An Organizational Chart and a brief summary of the operational component functions is included.





*Canmar Carrier: Length 608 feet: BAB office moved from landbase mid September relocated on bridge of carrier.*

### **Highlights in A.W.C.**

In May and June 9 meteorologists moved into A.W.C., 5 MSC grads for the summer and 4 on permanent postings. The BAB staff started their preparatory work June 1 and various members of MSRB were visiting A.W.C. for periods of 1 to 3 weeks to aid with the Computer Prediction Support System (CPSS) implementation.

The first real action was when Bob Grauman, Glen Leal and Brian Davies landed on the ice June 10 at  $72^{\circ} 53.5'N$   $136^{\circ} 13.5'W$  to set up the A.E.S. Automatic Weather Station, 325 statute miles north of Inuvik. We had a number of problems with the station but did provide useful data during the early part of the project.

The main forecast support for BAB was provided from the Arctic Weather Centre beginning July 1. In the A.W.C. a specialty team was formed from the Senior Meteorologists, lead by J. Linton, and they provided dedicated forecast services for the Beaufort Sea area. Using the CPSS along with the standard guidance site specific forecasts were issued to BAB covering weather, winds, and waves.

The CPSS consisted of a set of computer modules that provided real time objective analysis and forecasts of pressure, surface wind, temperature and dew point temperature, along with derived fields such as wave height and period, and expected ice floe motions.

To enable the CPSS to be run on the Hewitt Packard computer system in the A.W.C., funds were provided by the users to purchase a second CPU and a disk drive. These were installed in the late spring and the CPSS was operating by the beginning of July. Several problems were discovered in the system through July, but the CPSS was providing usable guidance by mid August.

Several of the fields produced by the CPSS were transmitted to BAB and Ice Forecasting Central by faximile for their use.

The A.W.C. specialty team was disbanded on the 25th of September when CANMAR ceased their deep drilling and IOL had finished for the season, but the CPSS continued to provide guidance for BAB and Ice Central until late October.

### **Highlights at Beaufort Advance Base**

In the Beaufort Sea area, Canmar was just beginning her drill sojourn and needed to move an armada of vessels around the Alaskan Coast. Previous years' experience allowed IOL '2 feet in the door' and as a result IOL was prepared to commence operation a

few weeks before Canmar. To satisfy this need and to offer preliminary service to limited Canmar personnel, a Beaufort advance satellite office was established at Inuvik on June 26, staffed by meteorologist G. Hykawy and technician J. Buchanan. The first special weather and wave forecasts began on schedule, July 1.

During a hectic 5 days from July 5 to 9, the main Beaufort Advance Base was set up, converting an empty trailer to a full forecast office, located at the Arcnav docks in Tuktoyaktuk Harbour. The office was equipped with Alden Fax Recorders on circuit 1801, teletype on circuit 110, Muirhead K560 satellite recorder to receive VHRR pictures from Satellite Data Laboratory in Toronto and from the University of Alberta, photocopier, 2 telecopiers, HP-65 programmable calculator, and various office supplies. BAB was initially staffed with 3 meteorologists, G. Wells, W. Feuerherdt and G. Hykawy, all from Arctic Weather Centre in Edmonton. The Canmar fleet of ice breakers, supply vessels, bulk carrier, and the drill ships Explorers I and III arrived at the Beaufort Sea in early August, and drilling commenced immediately at the Tingmiark and Kopanoar locations. D. Mudry, forecaster from Ice Central Ottawa arrived BAB August 26 to assist in the forecasting program, particularly that portion relating to ice forecasts and reconnaissance. P. Côté replaced him late September until 19 October. Also early in September, another drillship, Explorer II, arrived in the Beaufort area through Queen Maud Gulf, assisted by the Canadian Icebreaker *Sir John A. MacDonald*. She began preparatory drilling on the Nectoralik site.

From 11th to 16th September, BAB moved its office to the Canmar Carrier which anchored in the harbour a few days previously. During the move an interim office was again operated from Inuvik staffed by two meteorologists. Favourable ice and weather forecasts allowed extension of the 'deep hole' drilling season from the 15th to 25th September with provision for shallow preparatory drilling of other sites beyond that 10-day extension.



*"Lady of Lourdes" – Used until a few years ago for re-supply of missionaries of western Arctic.  
Le "Lady of Lourdes" servit jusqu'à ces dernières années au transport de missionnaires dans l'Ouest arctique.*



*Beaufort advance base office (at centre) during initial stage of operations.  
Bureau d'origine du projet de la mer de Beaufort (au centre) au cours de la  
phase initiale des opérations.*

The favourable summer season permitted IOL not only to complete their planned program, but also to complete work beyond their original expectations. The first project was the sand-bagging of their Sarpik location and then to island construction at 2 locations near Kugmallit Bay and a third near McKinley Bay.

Services provided to Canmar included 4 daily forecasts, each covering the synoptic regime, wind, wave, and ice motion/disintegration prediction for the drill site specific areas. The initial forecasts contained unique format/procedure dictated by specialized user requirements. As the season progressed user needs modified in line with the weather and ice season itself, and BAB adjusted and aligned its format to follow suit.

BAB also issued 3 times daily weather, wind, and wave forecasts for the IOL sites. These forecasts were produced in conjunction with AWCB component guidance.

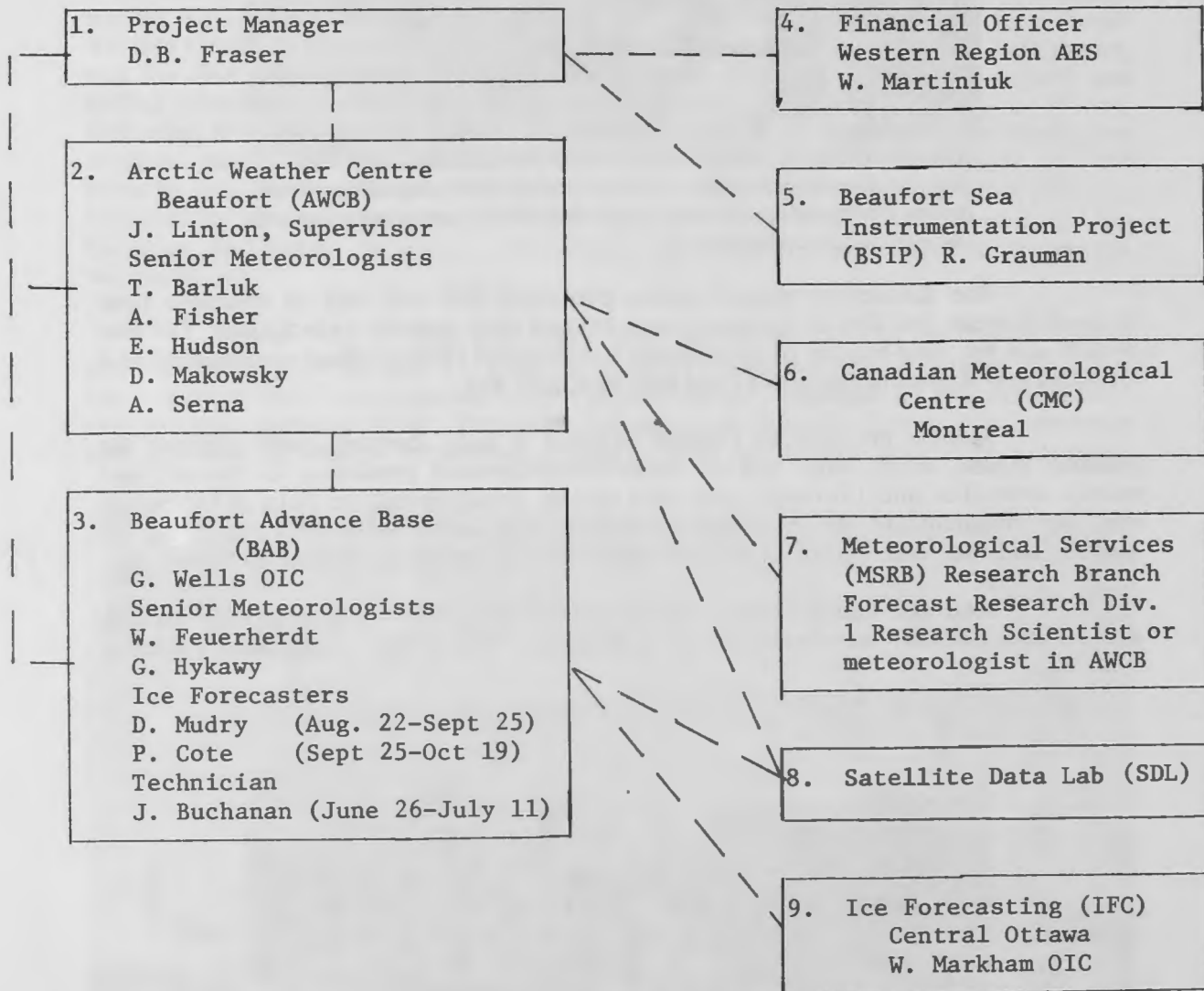


*Pressure ridge up to 40 feet above water level.  
Crête barométrique s'élevant jusqu'à 40 pieds au-dessus du niveau de la  
mer.*

System Organization Chart

OPERATIONS

SUPPORT UNITS



The forecasters at BAB were also involved in the ice reconnaissance via helicopter and Twin Otter aircraft. Two reccos were completed per day until mid - September when the ice retreated well north of the drill area and the frequency of reconnaissance was reduced. In addition to the transmission of ice recco charts to Canmar, BAB sent the charts to IFC in Ottawa for incorporation into their overall current and progged ice condition charts, and in exchange for the A.E.S. ice reccos flown by CF-NAY out of Inuvik.

September 25 IOL ceased its observational program and on October 1 closed their summer operations. Canmar followed suit with cessation of observations and forecasts 20th October by which time drill ships and suppliers settled in harbours at Herschel Island and Tuktoyaktuk, in preparation for winter's seige.

Although the operational phase is complete there is still work to be done on the evaluation program, preparation of recommendations for next year and reports.

Our automatic weather station was still reporting temperatures and winds at the time of writing but its exact location is unknown in spite of a number of searches. Our station did provide useful information for two significant storms whereas the one deployed by Canmar never did provide weather observations. The chance that we will recover either of these stations is very small.



*Beaufort Sea Beauty* – One of the three Explorer drill ships owned by Dome Petroleum which have been actively exploring for oil in Canada's Beaufort sea during the summer months.

*"Beaufort Sea Beauty" – est l'un des trois navires de forage Explorer appartenant à la compagnie Dome Petroleum qui ont exploré le fond de la mer de Beaufort l'été dernier.*

The enthusiasm, competence and dedication of the staff at BAB had a great deal to do with the success of the project. Preliminary discussion with Canmar indicates that a similar program will be supported by industry next year.

A special note of thanks is extended to the weather office staff at Inuvik, B. Davies A/OIC et al, and to the Ministry of Transport Aeradio personnel at Tuktoyaktuk Airport, E. Harrison OIC et al., for their help and cooperation during the Beaufort Sea Project. Without their help during time of initial set up, power outages, and during moves by BAB, the operation would have been less successful.

#### Insert – EXTRACT FROM CANMAR BULLETIN SEPTEMBER 30

“Environment Canada’s Beaufort Advance Base, which was set up at the beginning of the season in Tuk, has proven to be of valuable assistance to Canmar’s operation. The base is now located on the bridge aboard the Carrier where the weather forecasters maintain a close watch on all weather and ice conditions. As a result of getting approval for five additional sites this season, Canmar extended its contract with A.E.S. to the end of the extended drilling season. The A.E.S. predictions have been extremely accurate and have enabled operations people to have adequate time to plan for alterations to their operations to take into account changing weather conditions.”

#### SUMMARY OF COMPONENT FUNCTIONS

1. Project Manager: manages operation, controls finances and resources in Government – Canmar agreement, arranges changes in system in consultation with Canmar Project Manager and Imperial Oil Limited.
2. AWCB: J. Linton supervises and participates in the operational program. Senior Meteorologists in this unit monitor computer support products, produce weather and wave forecasts and warnings (FPCN 52) on a continuous basis.
3. BAB: monitors all weather and wave forecasts and warnings from AWCB and updates as required to meet the needs of Canmar and IOL. Produces four wind, wave and ice forecasts per day (FICN 1 and 2) and intermediate updates every three hours or as required. Provides 24 hour consultation service to Canmar and IOL operations supervisors. Consults with AWCB and IFC as required.
4. Financial management support is provided by W. Martiniuk, Financial Officer, Western Region.
5. BSIP: R. Grauman with the assistance of G. Leal carry out all activities related to the automatic weather station such as deployment, servicing and retrieval plus consultation service regarding second station developed by Canmar.
6. CMC Support: output field from large scale numerical model sent to AWCB twice per day to input to Computer Prediction Support System (CPSS).



7. MSRB Support: various staff involved in the development of the CPSS are scheduled for temporary duty in AWC one at a time to ensure the CPSS operates effectively and aid with the verification program.
8. SDL: Infra red and visual VHRR imagery for the Beaufort Sea is sent to AWC via broadband then relayed by AWC to BAB. Special visual APT imagery from U of A is sent by AWC to BAB.
9. IFC: ice analysis charts and 36 hour prognostic ice chart supplied daily to BAB. OIC BAB arranges for special AES ice reconnaissance thru IFC as required. IFC supplies ice information to Canmar management in Calgary as required. Ice forecasters assigned to BAB, August 22 – October 19 to increase capability of BAB to meet all requirements during critical phase of project.
10. More detailed information may be obtained from the project manager or line managers or supervisors shown on organization chart.

## SOME UNUSUAL ICE SEASONS ON LAKE WINNIPEG

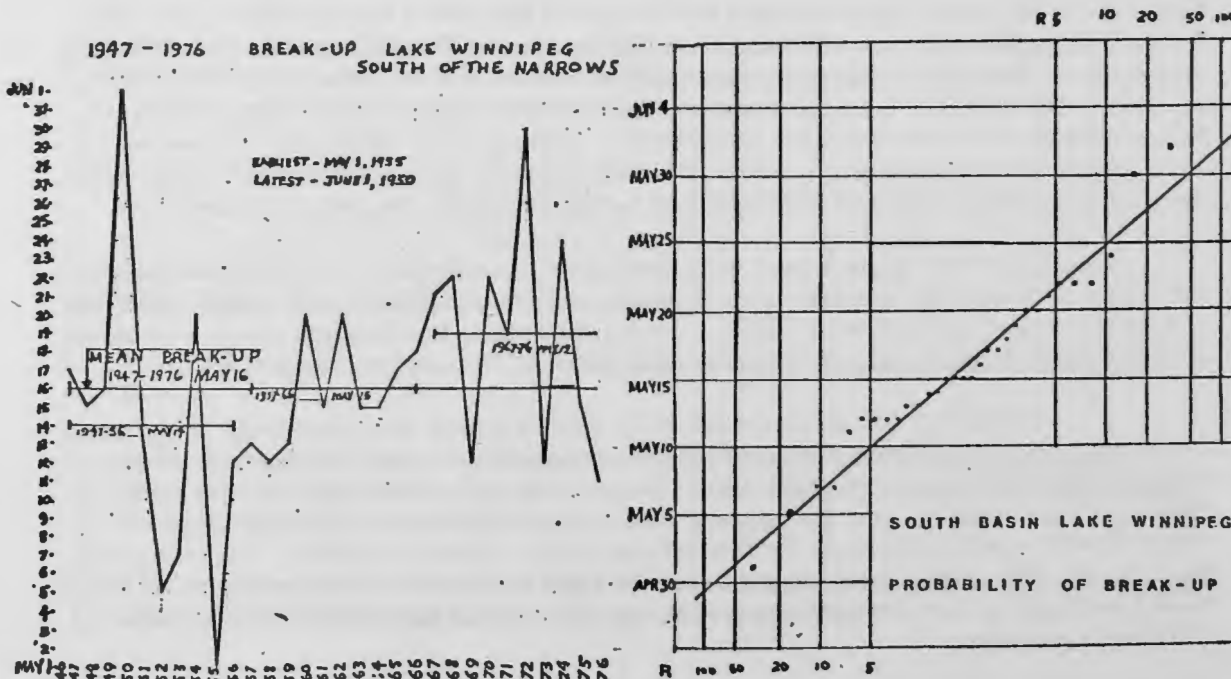
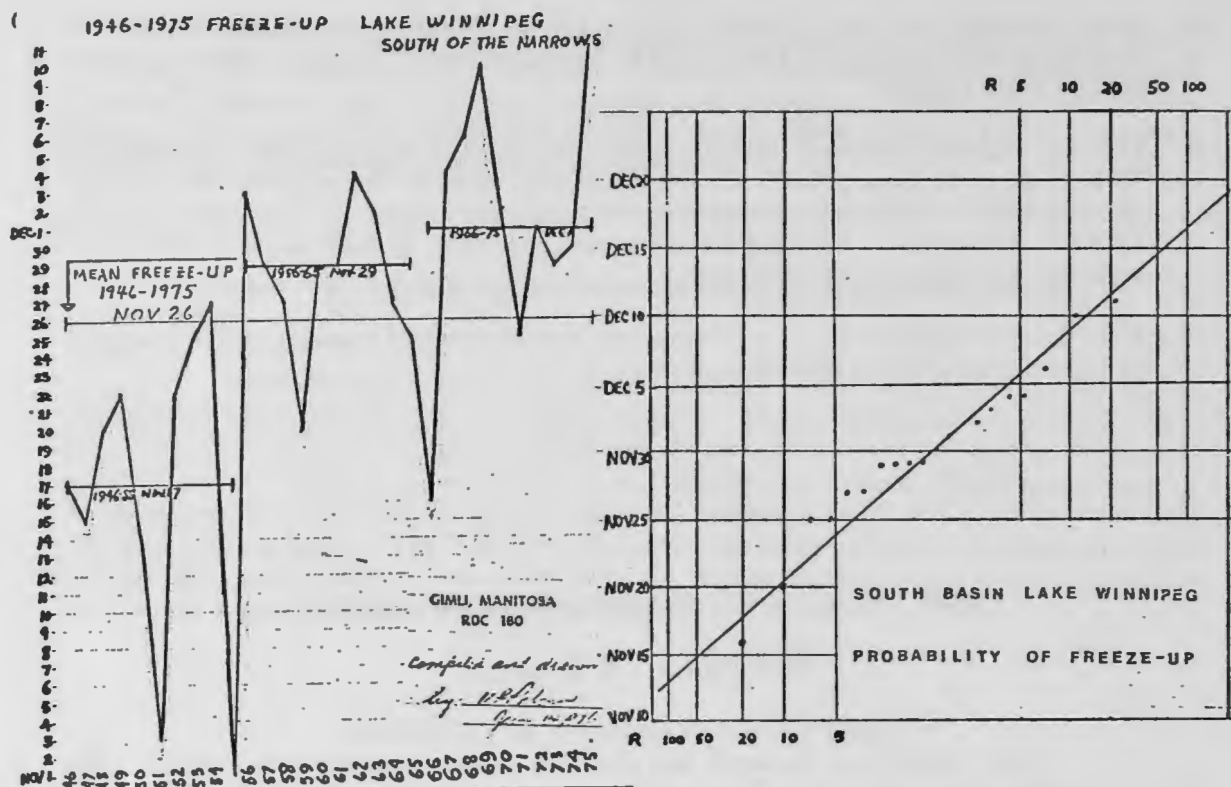
W.G. Palmer – E. Einarsson

Three decades of freeze-up and break-up observations are now available from Gimli on southern Lake Winnipeg. The record of these observations is shown in the accompanying graphs, and presents some interesting variations.

The break-up graph indicates a range of one month – from May 1 in 1950 to June 1 in 1950. It will be remembered that 1950 was the year of the most recent Red River flood, and that the late snowmelt and break-up has been well documented as a contributing factor to the severity of that phenomenon. In that year, mean temperatures in April over southern Lake Winnipeg were four degrees Celsius below normal, and in May, two degrees below normal, with above normal temperatures arriving about mid-month. Conversely, in 1955, April mean temperatures were five to six degrees above normal. At Gimli, mean daily temperatures were above freezing for all but three days in the month of April.

The break-up data have been plotted on normal probability paper to estimate the return period of the unusual dates. This plot appears to indicate that a break-up as late as June 1 is a relatively rare event, likely to occur about once in a hundred years. A break-up as early as May 1 may be expected once in fifty years.

A glance at the graph for freeze-up reveals a basic incompatibility in the data. In the first decade, only one freeze-up date was recorded each year, and that was the observation of first permanent ice. After 1955, observations of both the first ice, and complete freeze-over are available, and the latter or more relevant date is shown on the graph. It was therefore not possible to include the first decade in the probability estimate. The probability plot for the last twenty years suggests that the early freeze-over of November 16 in 1966 would be about a thirty or forty year event, and that no unusually late freeze-over occurred in those two decades.



Returning to the graph of the first decade, two unusually early first ice observations stand out 1951 and 1955. Let us focus our attention for a moment on 1951. That was the year Willard Olson, our intrepid lightkeeper – climatological observer at George Island was marooned there for over a month.

At the end of October, the *SS Keenora*, Selkirk Navigation Company's supply and tourist ship, steamed by George Island on its last voyage of the season. The *Chickama*, a smaller vessel that plied the route from Warren Landing to Norway House, was usually the last commercial boat on the lake, and was assigned the task of picking up the lightkeepers. This time, the *Chickama* became frozen in at Warren Landing on November 2. The *Keenora* attempted to return to George Island, but was stopped by ice. Olson's plight became known immediately and was front page material for the next month. A paradrop on November 3 supplied food, and batteries for his receive-only radio. Later overflights from time to time verified that he was still alive. Rescue operations were somewhat lackadaisical by today's standards; the R.C.A.F. declined to despatch a helicopter to the scene. A further paradrop of food and supplies on November 21 was well observed and reported by the press. On December 3, Olson was asked to mark out a strip on the ice, and he complied, adding the plaintive message "Any Fags?" Finally, on December 7, the evacuation was effected by L. Frankham in a Tiger Moth.

Olson was not the only one inconvenienced by the early freeze-up. On November 3, five fishermen were narrowly rescued at Traverse Bay. Several fishing boats and other lake vessels did not make it back to the home port. Problems were also encountered in 1955, but nothing as dramatic as the George Island episode.

### HUBERT ALLARD NOMMÉ

La Commission de la Fonction Publique a nommé Hubert Allard au poste de Surintendant des Services Scientifiques, organisme qui relève du Service de l'environnement atmosphérique (Pêches et Environnement Canada), Région du Québec. Cette nouvelle a été annoncée par monsieur R.J. Fichaud, Directeur régional du Service de l'environnement atmosphérique.

A ce poste, monsieur Allard aura la responsabilité de gérer les activités et les ressources des services scientifiques de la Région du Québec. Il devra donc coordonner et participer au développement de services météorologiques spécialisés, superviser le service de consultation sur les applications de la météorologie, la climatologie et l'océanographie, de même que formuler les exigences pour diriger et conduire des études sur les applications météorologiques. De plus, il sera appelé à représenter le Service de l'environnement atmosphérique à différents comités et groupes de travail multi-disciplinaires se penchant sur les problèmes de nature environnementale.

Monsieur Hubert Allard est originaire de Montréal. Après avoir obtenu un Bac des Arts et un B.Sc. de l'Université de Montréal, il entra au Service de l'environnement atmosphérique en 1969. Il fit un stage en météorologie à Toronto, à la suite duquel il oeuvra

à un poste temporaire de recherche à la division de recherche sur les prévisions atmosphériques. Il occupa ensuite un poste de météorologiste/prévisionniste au Bureau des prévisions du Québec. Participant activement à la création d'une unité informatique, il démontra certaines aptitudes à la gestion. De retour au Bureau de prévisions, à la suite de l'obtention d'une maîtrise en science (Météorologie) de l'Université McGill en 1974, il participa à la formation de météorologistes à l'UQAM. Il devint météorologiste des services scientifiques en 1975, dernier poste qu'il occupa avant cette nomination.

Le bureau de monsieur Hubert Allard est situé dans l'édifice de l'administration régionale du SEA et on peut communiquer avec lui en composant 333-3020.

#### RETIREMENT OF W.W. (BAROMETER BILL) STEWART

Approximately 140 persons were present on December 22, 1976 to bid adieu to Bill Stewart, who was retiring from active service in the AES after 35½ years. Bill was well known throughout the service, not only by his fellow meteorologists, but by many technicians, administrative personnel and voluntary climatological observers. His many years in the regional office at Edmonton as "the" inspector, brought him into contact with all the observing stations in that region and he never passed up an opportunity to recruit additional personnel. We are indebted to him for several of our present staff.



*W.W. (Bill) Stewart.*

ab Photographic

Bill became somewhat of a cornerstone at AES HQ, and his pragmatic approach to many problems will be long remembered by his colleagues. To mark Bill's departure he was presented with various useful and not so useful gifts including an English Trooper's Sword circa 1908, an oil painting of the 10th Hussars, a refurbished barograph, a "hybrid" automatic weather station and some unmentionables.

Bill has a spot in everyone's heart in spite of his earlier "hardnose" and "boisterous" approach – we will all sadly miss him and we wish him and his wife Isabel a long and happy retirement.

### OPENING OF THE CHARLOTTETOWN CITY WEATHER OFFICE

On September 3, 1976, the Atmospheric Environment Service, Atlantic Region, took another step forward with the official opening of the Charlottetown Weather Office, the first storefront type weather office in our Region.

Mr. J.A.W. McCulloch, Regional Director, as Master of Ceremonies, introduced the official party, welcomed the guests and spoke on behalf of the Atmospheric Environment Service.

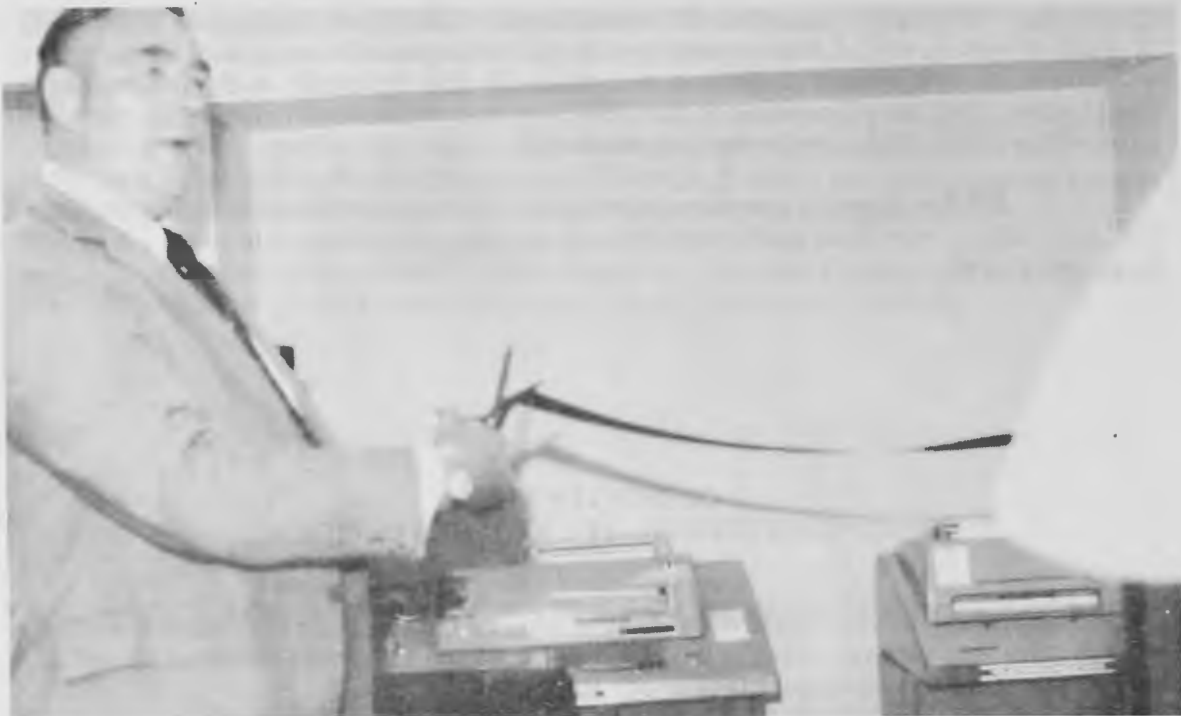
In his remarks, Mr. McCulloch explained the operation of the Atmospheric Environment Service at the national, regional and local levels. He spoke about the types of information available at the various levels and indicated the services that would be available to the local populace.

The Honourable Daniel MacDonald, Minister of Veteran's Affairs spoke on behalf of the federal government. Mr. MacDonald paid tribute to the A.E.S. in view of the fact we were able to open a modest facility for the community of Charlottetown during a period of restraint and rearrange our resources sufficiently to carry out the operation. Mr. MacDonald explained that while meteorologists at the Canadian Forces Base Summerside had supplied weather information to residents of P.E.I., their first commitment was to the Canadian Forces Base. The Charlottetown WO will be providing service to all citizens with particular emphasis on the needs of Prince Edward Island.

Mr. MacDonald cut the ribbon to officially open our new facility, and Mr. Heath MacQuarrie, M.P. for the area, turned the switch to start teletype circuit 180 and the Hon. Gilbert Clements of the provincial government turned the switch for circuit 181. At that time Mr. MacDonald invited the guests to view our office, the communications apparatus and issued an invitation to all who pass to drop in and see the latest charts and obtain the most recent forecasts.

Once the formalities were over, Mr. J. McCulloch and the Officer-in-Charge, Jim Spears, invited the many guests to coffee and cold cuts.

Among the guests were representatives of federal government departments, provincial government agencies, the press, including television, radio and newspapers.



*Hon. Dan J. MacDonald – Cutting the ribbon. L'Honorable Dan J. MacDonald s'apprête à couper le ruban.*



*R.H. O'Brien (RSGWS), A. Sutherland (RSSR), J. Spears (OIC Charlottetown City WX Office), Hon. Dan J. MacDonald (Fed. Min. Veterans Affairs), J.A.W. McCulloch, H. MacQuarrie (Fed. member for riding). M. R.H. O'Brien (SRSMG), M. A. Sutherland (RSSR), M. J. Spears (Responsable du bureau météorologique de Charlottetown), L'Honorable Dan J. MacDonald (Ministre fédéral des Anciens combattants), M. J.A.W. McCulloch, M. H. MacQuarrie (Député fédéral de cette circonscription).*

## DES VILLES CHAUFFEES A L'ENERGIE SOLAIRE?

Le ministère fédéral de l'Environnement doit rendre public, dans les jours prochains, un rapport dans lequel il sera question du programme soumis par deux géographes de l'Université de Victoria, en Colombie-Britannique, en vertu duquel le gouvernement fédéral s'associerait à l'entreprise privée pour créer au Canada des villes expérimentales utilisant l'énergie solaire et l'électricité produite par des moulins à vent.

Les professeurs Derrick Sewell et Harold Foster ont soumis un rapport de 162 pages traitant de l'établissement d'une de ces cités de l'avenir dans chacune des provinces et dont la construction serait partiellement payée par une taxe spéciale sur le pétrole et le gaz naturel.

Les auteurs, se défendant de faire partie de l'école dite "conserver" et dont le but est de réduire la production d'énergie, estiment que le progrès doit se faire par l'efficacité et l'économie des ressources.

Les villes solaires seraient très indépendantes des sources normales d'énergie puisqu'elles utiliseraient l'énergie solaire et éolienne pour obtenir le chauffage et l'électricité sans pollution.

Aux termes du programme, ces villes seraient administrées par une société de la Couronne en collaboration avec l'industrie privée et constitueraient un marché et par conséquent un encouragement, pour les manufacturiers de collecteurs d'énergie solaire, de pompes de chaleur, de génératrices à moulins à vent, etc.

Le ministère imprimera 1,000 copies de ce rapport qui sera distribué en milieu intéressés parce qu'il y a là une étude des tendances actuelles en matière de politiques énergétiques et une philosophie relative à l'avenir.

MM. Sewell et Foster expliquent qu'une société doit toujours se tenir prête à offrir plusieurs solutions devant un changement inattendu. Or, à leur avis, si le gouvernement canadien a toujours montré un intérêt croissant dans le choix des solutions qui lui permettraient de s'accomoder des changements, ses structures administratives ont toujours été inflexibles et ses politiques traditionnelles. L'inertie institutionnelle, disent les auteurs, est causée par une peur de l'innovation à cause du risque d'erreurs et de critiques et le Canada paraît plus vouloir se préparer à faire face à des crises qu'à prévoir et éviter ces dernières.

Des changements fondamentaux dans la société canadienne s'imposent devant la menace d'une crise de l'énergie.

MM. Foster et Sewell ajoutent qu'ils espèrent trouver qui sont ceux qui au Canada favorisent l'utilisation de l'énergie solaire et qui sont ceux qui s'y opposent et pourquoi.

Pour mieux exprimer leurs vues sur l'avenir ils imaginent deux scénarios traitant des problèmes de l'an 2,000 sous la forme des débats parlementaires aux Communes en l'an 2,000.

Les conclusions de ce rapport ne sont pas nécessairement celles du gouvernement mais le ministère de l'Environnement estime qu'il y a là matière à réflexion sur les problèmes de l'avenir.

Nul ne sait si le Canada entreprendra ne serait-ce que partiellement le programmes des "cités solaires".

### B.C. MASON RETIRES

Burpee Mason, a member of the Meteorology Training Centre, Transport Canada Training Institute, Ottawa, retired from the Atmospheric Environment Service on December 30, 1976.

Burpee joined the Met Service in 1946 and for the first fifteen years he worked at Halifax (13 years) and Resolute Bay (2 years). Since 1961 he has worked as an instructor in Ottawa, first with the Air Services Training School, which has since become Transport Canada Training Institute.

Burpee was born in Tangier, Nova Scotia and prior to joining the Met Service, served with the 40th Field Battery, 11th Field Regiment, 8th Army in Italy and then with the Canadian Army in France through to Germany.

After more than 35 years service to his country, Burpee left with the good wishes of all his fellow workers and friends and will take up residence in Stewiacke, Nova Scotia.

### CFWO OTTAWA AWARDED PLAQUE



The Meteorological Office at CFB Ottawa won the Transient Service Recognition Plaque for providing outstanding service to aircrew during the evaluation period 1 Jan. 76 to 30 June 76. Don Cameron, A/BMetO, at CFB Ottawa during that period, is seen receiving the Plaque from LCol Popham, AIRCOM. Looking on with obvious approval is WO Ron Hartlen.



### IN MEMORY OF KAY

KAY ROCKETT was an intelligent, compassionate woman, and she gained the respect and admiration of her colleagues for her outstanding ability to communicate. Her warmth and personal sparkle will be greatly missed.

A book, in her memory, has been donated to AES Headquarters Library.



Kay joined the Service in April 1961. Her most recent position was with Field Services Directorate as a Financial Clerk.

## PERSONNEL

The following have accepted positions as a result of competitions:  
Les personnes suivantes ont accepté ces postes après concours:

76-DOE-WIN-CC-524	Officer-in-Charge EG-ESS-6 Hall Beach F.L. Risbey
76-DOE-WIN-WC-546	Supv. Administration & Transportation AS-1 Resolute L.R. Stevenson
75-DOE-WPNA-CC-114	Supv. Technician Prog. EG-ESS-7 Western Region E.A. Prozny
76-DOE-TOR-CC-234	Met Instructor MT-4 Air Transport CFB Trenton G.H. Bennett
76-DOE-WIN-CC-525	Pres. Technician EG-ESS-5 Churchill, Man. D. Satkunas

The following transfers took place:  
Les transferts suivants ont été effectués:

J.B. Merrick	From:De 1 CAG Baden To:A CFB Greenwood
S. Dupuis	From:De Alberta Weather Office To:A CFB Trenton
E.R. Winterer	From:De HQ 12th Weather Squadron Colorado Springs, Colorado To:A Alberta Weather Office
C. Laprise	From:De Hall Beach To:A Quebec Region

B. Hill	From:De Mould Bay To:A Ship Papa
D. Sims	From:De Churchill To:A Prince Albert
B.A. Bain	From:De Central Region To:A CCGS Quadra
R.J. Morris	From:De AES HQ To:A Pacific Weather Centre

**The following are on temporary duty or special assignment:**  
**Les personnes suivantes occupent temporairement ces emplois ou sont en stage:**

R.B. Hulan	To:A Sable Island A/OIC
S.F. Malone	To:A Maniwaki A/OIC

**Separations:**  
**Démissions et retraites:**

Luc Sanders	Resigned	Quebec Region
K.D. Godin	Resigned	Pacific Region
G. Ord	Resigned	National Defence
G. Endler	Resigned	Central Region
K. Oliver		Western Region
D.R. Hudak	Resigned	Ontario Region
L.H. Malone	Resigned	Ontario Region
W.W. Stewart	Retired	AES HQ, FSD
L. Jaworski	Resigned	
J.D. Holland	Retired	AES HQ, ARD

TRIVIA

MOTHER SHIPTON'S 1561 PROPHECIES

Mother Shipton, who is thought to have lived from 1488 to 1561, was born, if ancient pamphlets are to be believed, to Agatha Southill of Knaresborough, Yorkshire. Her mother was reputed to be a witch who consorted with the devil and she named her "exceedingly ugly" daughter Ursula. Ugly or not, Ursula married Tobias Shipton, a builder, and settled down to keep house and write prophecies. Many concerned the reign of Henry VIII, a rich subject for many writers over the years. Her fame was increased by the Great Fire of London (1666) which she is reputed to have predicted. Here are some of the other things she had to say:

A carriage without horses shall go,  
Disaster fill the world with woe;  
In London Primrose Hill shall be  
Its centre hold a bishop's see.  
Around the world men's thoughts shall  
fly

Quick as the twinkling of an eye.  
And water shall great wonders do —  
How strange, and yet it shall come  
true.

Then upside down the world shall be,  
And gold found at the root of tree;  
Thro' tow'ring hills proud man shall  
ride,

No horse nor ass move by his side.  
Beneath the water men shall walk;  
Shall ride, shall sleep and even talk;  
And in the air, men shall be seen,  
In white, in black, as well as green.  
A great man then shall come and go,  
For prophecy declares it so.

In water iron then shall float  
As easy as a wooden boat.  
Gold shall be found in stream or stone,  
In land that is as yet unknown.

Water and fire shall wonders do,  
And England shall admit a Jew.  
The Jew that once was held in scorn  
Shall of a Christian then be born.

A house of glass shall come to pass  
In England — but alas, alas!  
A war will follow with the work  
Where dwells the pagan and the Turk.  
The states will lock in fiercest strife,  
And seek to take each other's life;  
When north shall divide the south,  
The eagle builds in lion's mouth.  
Then tax and blood and cruel war

Shall come to every humble door.  
Three times shall sunny, lovely France  
Be led to play a bloody dance;  
Before the people shall be free,  
Three tyrant rulers shall she see;  
Three rulers, in succession, be  
Each sprung from diff'rent dynasty.  
Then, when the fiercest flight is done,  
England and France shall be as one.  
The British olive next shall twine  
In marriage with the German vine.  
Men walk beneath and over streams  
Fulfilled shall be our strangest dreams.  
All England's sons that plow the land  
Shall oft be seen with book in hand.  
The poor shall now most wisdom know,  
And water wind where corn doth grow.  
Great houses stand in far-flung vale,  
All covered o'er with snow and hail.  
And now a word in uncouth rhyme  
Of what shall be in future time.  
For in those wondrous, far-off days  
The women shall adopt a craze  
To dress like men and trousers wear,  
And cut off their locks of hair.  
They'll ride astride with brazen brow  
As witches do on broomsticks now.  
Then love shall die and marriage cease  
And nations wane as babes decrease.  
The wives shall fondle cats and dogs  
And men live much the same as hogs.  
In nineteen hundred and twenty-six  
Build houses light of straw and sticks,  
For then shall mighty wars be planned  
And fire and sword shall sweep the  
land.  
For those who live the century through,  
In fear and trembling this will do.  
Flee to the mountains and the dens  
To bog and forest and wild fens  
For fires will rage and oceans roar  
When Gabriel stands on sea and shore:  
And as he blows his wondrous horn,  
Old worlds shall die and new be born.

Une liste d'expressions diverses comprenant des proverbes, des locutions, des dictons, des gallicismes, des canadianismes, des régionalismes, des anglicismes et même des barbarismes.

Expressions	Signification ou équivalent
Mettre sa main au feu	Etre convaincu d'une chose
Tenir quelqu'un par la ganse	Coincer quelqu'un
Un tacot	Une vieille auto
Magasiner	Faire des emplettes
Etre sur le piton	Etre de bonne humeur
Se mettre les deux pieds dans les plats	Faire une gaffe
Se casser le cou	Prendre des risques
Il lui a tombé sur le dos	Il l'a reprimandé
Il a la tête fêlée	Il est un peu fou
Il a perdu son air	Il a perdu sa bonne humeur
Prends ton trou	Résigne-toi
Il est figé	Il est ému

#### A FRENCH-CANADIAN LAMENT ON LEARNING ENGLISH

When the English tongue we speak  
Why is "break" not rhymed with "freak"?

Will you tell me why it's true  
We say "sew" but also "few"?

And the fashioner of verse  
Cannot cap his "horse" with "worse"?

"Beard" sounds not the same as "heard"  
"Cord" is different from "word"

"Cow" matches "Sow" but "low" is "lo"  
"Shoe" is never rhymed with "foe"

Think of "hose" and "dose" and "lose"  
And of "goose" and also "choose"

Think of "comb" and "tomb" and "bomb"  
"Doll" and "roll" and "home" and "some"

And since "pay" is rhymed with "say"  
Why not "paid" with "said" I pray?

We have "blood" and "food" and "good"  
"Mould" is not pronounced like "could"

Wherefore “done” but “gone” and “lone”  
Is there any reason known?

Pierre Bourdonnais  
Smiths Falls, Ontario

### LES PROVERBES QUÉBÉCOIS

“Il ne faut pas s'embarquer sans biscuits.”

– Il ne faut rien entreprendre sans réserves suffisantes.

“Il y a plus de jours que de semaines.”

– Rien ne presse.

“La femme du cordonnier est toujours mal chaussée.”

– Le promoteur de quelque chose en est toujours mal pourvu lui-même.

“A chaque jour suffit sa peine.”

– Inutile de se tourmenter inutilement.

“Faute de pain, on mange la galette.”

– Faute de plus, on se contente de ce qu'on a.

“Après la pluie, le beau temps.”

– Après les ennuis, la joie.

“Tout nouveau, tout beau.”

– La nouveauté impressionne toujours.

“La table tue plus de monde que l'épée.”

– La gourmandise est souvent mortelle.